NUTRITION REVIEWS

VOLUME 24 NUMBERS 1-12

January—December 1966

Published by

THE NUTRITION FOUNDATION, INC.

99 PARK AVENUE NEW YORK, N. Y. 10016

Copyright, 1966, Nutrition Foundation, Inc., New York, N. Y., U.S.A.

Public Health

RA
421
N97
V.24

Editor

FREDRICK J. STARE, PH.D., M.D., Professor of Nutrition, Schools of Medicine and Public Health, Harvard University; Associate in Medicine, Peter Bent Brigham Hospital, Boston. Editorial Office, 665 Huntington Ave., Boston, Mass. 02115

Assistant Editor

DOROTHY CAMPBELL, 665 Huntington Ave., Boston.

Associate Editors

WILLIAM F. BRIDGERS, M.D., Department of Medicine, University of Miami, Miami

DORIS H. CALLOWAY, PH.D., Department of Nutritional Sciences, University of California, Berkeley.

GILBERT B. FORBES, M.D., Department of Pediatrics, School of Medicine, University of Rochester, Rochester.

ROBERT E. HODGES, M.D., Department of Internal Medicine, University of Iowa, Iowa City.

OGDEN C. JOHNSON, PH.D., Nutrition Section, Office of International Research, National Institutes of Health, Bethesda.

RICHARD J. JONES, M.D., Department of Medicine, University of Chicago, Chicago.

OLAF MICKELSEN, PH.D., Department of Foods and Nutrition, Michigan State University, East Lansing.

JAMES C. PEDEN, JR., M.D., Department of Preventive Medicine and Public Health, School of Medicine, Washington University, St. Louis.

OSWALD A. ROELS, PH.D., Marine Biology Division, Lamont Geological Observatory, Columbia University, Palisades, New York.

JAMES H. SHAW, PH.D., Schools of Dental Medicine and Public Health, Harvard University, Boston.

ELMER H. STOTZ, PH.D., Department of Biochemistry, School of Medicine, University of Rochester, Rochester.

MARY ANN WILLIAMS, PH.D., Department of Nutritional Sciences, University of California, Berkeley.

INFORMATION FOR SUBSCRIBERS

NOTICE: BEGINNING JANUARY 1967, SUBSCRIPTIONS WILL BE FOR THE CALENDAR YEAR. ALL NEW AND RENEWAL SUBSCRIPTIONS WILL START WITH THE JANUARY ISSUE AND EXPIRE WITH THE DECEMBER ISSUE. Should any issue of the current volume be out of print at the time the subscription order is received, the pro-rata value of such numbers will be refunded to the subscriber.

Subscriptions should be sent to The Nutrition Foundation, Inc., 99 Park Ave., New York, N. Y. 10016. Rate $5.00 per year in the United States and Canada; $5.50 in other countries. A special student rate of $3.00 per year is offered to regularly matriculated students in colleges or universities whose subscription application is accompanied by an affirmation of student status signed by an authorized Department representative. Changes of address should be sent to The Nutrition Foundation. In the U. S. ZIP CODES must be included. Second-class postage paid at Baltimore, Md. 21202

Note: Items may be quoted from NUTRITION REVIEWS without special permission. If quotations are made, the editors ask only that credit be given to NUTRITION REVIEWS and that they be made in such a way that the original meaning of the review is preserved.

Reprints of reviews are *not* available. A limited number of reprints of the signed lead article may be obtained from the author.

THE NUTRITION FOUNDATION

The Nutrition Foundation was organized by food and related manufacturers in December, 1941, as a sincere expression of their interest in scientific progress and human health. The basic purposes of the Foundation are: (1) the development of a comprehensive program of fundamental research, providing basic information in the science of nutrition; and (2) the support of educational measures that will assist in making the science of nutrition effective in the lives of present and future generations.

The Foundation functions chiefly through grants-in-aid in support of research in university medical centers where there are facilities for research in the basic sciences and public health.

The entire program is one of public service. The funds of the Foundation are obtained through voluntary contributions from members. Grants are normally made twice each year, to become available on January 1st or July 1st.

OFFICERS

HERBERT E. LONGENECKER, *Chairman of the Board of Trustees*

LYLE C. ROLL, *Vice Chairman, Board of Directors*

A. N. McFARLANE, *Chairman, Board of Directors*

P. B. PEARSON, *President and Scientific Director*

HORACE L. SIPPLE, *Executive Secretary and Treasurer*

The Board of Trustees, the governing body of the Foundation, consists of one representative from each member company and representatives of the general public.

TRUSTEES

C. F. ATKINSON, *Vice President, The Glidden Company*
J. P. AUSTIN, *President, The Coca-Cola Company*
W. G. BARKER, *President, Thomas J. Lipton, Inc.*
*C. H. BEST, *University of Toronto*
L. S. BICKMORE, *President, National Biscuit Company*
W. E. BROWNLEE, *President & Chief Executive Officer, Sunshine Biscuits, Inc.*
A. B. CHAPMAN, *Chairman of the Board & President, Beech Nut Life Savers, Inc.*
H. M. CLEAVES, *Senior Vice President, General Foods Corporation*
R. C. COSGROVE, *President, Green Giant Company*
J. E. COUNTRYMAN, *President, California Packing Corp.*
J. N. CURLETT, *President, McCormick & Company, Inc.*
L. DALSEMER, *Executive Vice President, International Paper Company*
*F. M. DEPEW, *President, The Food & Drug Law Institute*
B. L. DURLING, *President, Stange Company*
J. EICHBERG, *President, American Lecithin Company, Inc.*
*M. S. EISENHOWER, *President, Johns Hopkins University*
F. R. ELLIOTT, *President, The Borden Company*
J. W. EVANS, *President, American Maize-Products Company*
*C. FRANCIS, *New York, New York*
J. N. FRIEDMAN, *President, Florasynth Laboratories, Incorporated*
H. W. GADSDEN, *President, Merck & Company, Inc.*
T. R. GAMBLE, *Chairman of the Board & Chief Executive Officer, Pet Incorporated*
D. F. GERBER, *Chairman, Gerber Products Company*
R. L. GIBSON, JR., *President, Libby, McNeill & Libby*
R. K. GOTTSHALL, *Chairman of the Board & Chief Executive Officer, Atlas Chemical Industries*
G. A. GRAHAM, *Secretary-Treasurer, Knox Gelatine, Incorporated*
R. F. GRAY, *Chairman of the Board, Geo. A. Hormel & Co.*
F. W. GRIFFITH, *President, The Griffith Laboratories, Incorporated*
*J. A. HANNAH, *President, Michigan State University*
J. G. HARRAR, *President, The Rockefeller Foundation*
H. J. HEINZ, II, *Chairman, H. J. Heinz Company*
E. J. HEKMAN, *President, Keebler Company*
V. W. HENNINGSEN, *Chairman of the Board, Henningsen Foods, Incorporated*
*REV. T. M. HESBURGH, *C.S.C., President, University of Notre Dame*
F. C. HILDEBRAND, *Vice President, General Mills, Inc.*
S. F. HINKLE, *Hershey Chocolate Corporation*
*G. W. IRVING, *Administrator, Agricultural Research Service, U.S.D.A.*
P. M. JARVIS, *Chairman, Swift & Company*
G. W. JENKINS, *President, Publix Super Markets, Inc.*
W. S. JOHNSON, *General Manager, Producers Creamery Company*
D. M. KENDALL, *President, PepsiCo, Inc.*
*J. R. KILLIAN, JR., *Chairman, Massachusetts Institute of Technology Corporation*
*C. G. KING, *Director of Research Grants Management, St. Luke's Hospital Center*
*G. L. KIRK, *President, Columbia University*
E. LANGENAU, *Vice President & Technical Director, Fritzsche Brothers, Inc.*
F. S. LEINBACH, *President, Riegel Paper Corporation*
J. P. LEVIS, *Chairman, Owens-Illinois*
D. M. LEVITT, *President, DCA Food Industries, Inc.*
*H. E. LONGENECKER, *President, Tulane University*
W. C. LOTHROP, *Vice President, Armour & Company*
D. B. LOURIE, *Chairman, The Quaker Oats Company*
J. H. MARSHALL, *President, California & Hawaiian Sugar Refining Corp.*
R. R. MAUSER, *President, California Canners & Growers*
W. F. MAY, *Chairman, American Can Company*
O. G. MAYER, JR., *Chairman, Oscar Mayer & Co.*
A. N. McFARLANE, *Chairman, Corn Products Company*
*E. MRAK, *Chancellor, University of California, Davis, California*
M. C. MUMFORD, *Chairman, Lever Brothers Company*
W. B. MURPHY, *President, Campbell Soup Company*
*J. Q. NEWTON, *President, The Commonwealth Fund*
W. F. OLIVER, *President, The American Sugar Company*
*P. B. PEARSON, *President and Scientific Director, The Nutrition Foundation, Inc.*
R. L. PERIN, *Vice Chairman of the Board, Continental Can Company, Inc.*
C. W. PETTINGA, *Vice President Research, Development and Control, Eli Lilly & Company*
P. W. PILLSBURY, *Chairman, The Pillsbury Company*
J. G. PLEASANTS, *Vice President, Research & Development, The Procter & Gamble Company*
R. M. PULVER, *Executive Vice President, H. Kohnstamm & Company, Inc.*
W. F. QUINN, *President, Dole Company*
L. E. RIGLER, *President, Adolph's Limited*
L. C. ROLL, *Chairman & General Manager, Kellogg Company*
R. T. RYAN, *President, The Welch Grape Juice Company, Inc.*
L. J. SAUERS, *President American Home Foods*
L. H. SCHOENHOFEN, *President, Container Corporation of America*
*F. SEITZ, *President, National Academy of Sciences*
F. C. STAPLES, *President, SuCrest Corporation*
M. W. SWAIM, *President, Alton Box Board Co.*
C. A. THOMAS, *Chairman, Finance Committee, Monsanto Company*
H. G. WALTER, JR., *President, International Flavors & Fragrances, nc*
H. WEIGL, *President, Standard Brands Incorporated*
J. H. WETENHALL, *President, National Dairy Products Corp.*
W. F. WHITTIER, *President, Hannaford Bros. Co.*
H. M. WILLIAMS, *President, Hunt-Wesson Foods*
R. D. L. WIRTH, *Chairman of the Board, Universal Foods Corporation*
H. J. WOLFLISBERG, *President, The Nestle Co., Inc.*

*Representative of the public

The quality and independence of the research program are safeguarded by referee action and counsel of the Scientific Advisory Committee.

SCIENTIFIC ADVISORY COMMITTEE

GEORGE M. BRIGGS
University of California
R. W. ENGEL
Virginia Polytechnic Institute
GILBERT B. FORBES
University of Rochester
WENDELL H. GRIFFITH
Federation of American Societies for Experimental Biology
Alfred E. Harper
University of Wisconsin
O. L. KLINE
Washington, D. C.
Carl H. Krieger
Representative from Industry
John F. Murphy
Representative from Industry
B. S. SCHWEIGERT
Michigan State University
NEVIN S. SCRIMSHAW
Massachusetts Institute of Technology
HAROLD H. WILLIAMS
Cornell University
P. B. PEARSON, Chairman
H. L. SIPPLE, Secretary

THOSE WHO SUPPORT THE FOUNDATION

MEMBERS: Adolph's Ltd., Alton Box Board Company, American Can Company, American Home Foods, American Lecithin Company, Inc., American Maize-Products Company, The American Sugar Company, Armour & Company, Atlas Chemical Industries, Inc., Beech-Nut Life Savers, Inc., The Borden Company, California Canners & Growers, California & Hawaiian Sugar Refining Corporation, California Packing Corporation, Campbell Soup Company, The Coca-Cola Company, Container Corporation of America, Continental Can Company, Inc., Corn Products Company, DCA Food Industries, Inc., Dole Company, Florasynth Laboratories, Inc., Fritzsche Brothers, Inc., General Foods Corporation, General Mills, Inc., Gerber Products Company, The Glidden Company, Green Giant Company, The Griffith Laboratories, Inc., Hannaford Bros. Co., H. J. Heinz Company, Henningsen Foods, Inc., Hershey Chocolate Corporation, Geo. A. Hormel & Co., Hunt-Wesson Foods, International Flavors & Fragrances, Inc., International Paper Company, Keebler Company, Kellogg Company, Knox Gelatine, Inc., H. Kohnstamm & Co., Inc., Lever Brothers Company, Libby, McNeill & Libby, Eli Lilly and Company, Thomas J. Lipton, Inc., Oscar Mayer & Company, McCormick & Company, Inc., Merck & Co., Inc., Monsanto Company, National Biscuit Company, National Dairy Products Corporation, The Nestle Company Inc., Owens-Illinois, Pepsi Co., Inc., Pet Incorporated, The Pillsbury Company, The Procter & Gamble Company, Producers Creamery Company, Publix Super Markets, Inc., The Quaker Oats Company, Riegel Paper Corporation, Standard Brands, Incorporated, Stange Co., SuCrest Corporation, Sunshine Biscuits, Inc., Swift & Company, Universal Foods Corporation, The Welch Grape Juice Company, Inc.

FOOD INDUSTRIES ADVISORY COMMITTEE

The committee serves as an advisory group and as a means of maintaining a close relationship between the Foundation's program and the technical staffs of the member firms.

PHILIP D. AINES
LAWRENCE ATKIN
HOWARD E. BAUMAN
THOMAS W. BIGGS
EVAN F. BINKERD
L. F. BORCHARDT
CHARLES B. BROEG
C. R. CALKINS
CARLOS CARIDAD
B. F. DAUBERT
EDGAR A. DAY
NORMAN W. DESROSIER
A. L. ELDER
ENIO FELICIOTTI
GEORGE FELTON
I. E. FRIEDMAN
JACK N. FRIEDMAN
JOHN W. GILBERT
W. R. GRAHAM, JR.
RICHARD L. HALL
KENNETH R. HANSON
RAYMOND H. HARTIGAN
KENNETH W. HARTLEY
H. E. O. HEINEMAN
BURDET HEINEMANN
S. ALLEN HEININGER
JOHN H. HOPPER
E. E. HOWE
I. J. HUTCHINGS
JOHN M. JACKSON
H. L. KRAVITZ
C. H. KRIEGER
JOHN V. LUCK
ORVILLE E. MAY
E. W. MEYERS
E. L. MITCHELL
BRUCE H. MORGAN
ROY E. MORSE
TRUE D. MORSE
JOHN F. MURPHY
C. F. NIVEN, JR.
FLOYD C. OLSON
WILLIAM P. PETERS
RICHARD S. RAINE
PAUL E. RAMSTAD
GERALD REED
R. A. REINECKE
SHELDON ROSENBERG
WALTER H. C. RUEGGEBERG
LOUIS SAIR
ROBERT M. SCHAFFNER
ARTHUR T. SCHRAMM
FREDERICK W. SCHWER
H. M. SLOSBERG
WERNER STERN
ROBERT A. STEWART
DEE TOURTELOTTE
F. R. VAN ABEELE
LEONARD J. VINSON
C. P. WHITTIER
ROSS C. WILCOX
VIRGIL O. WODICKA
J. A. ZILLGITT
SAMUEL ZUCKERMAN

The publication of NUTRITION REVIEWS has been undertaken to enable professionally trained people to keep abreast of current progress, and to have available an unbiased, authoritative review of the current research literature in the science of nutrition.

The Editorial Staff has been carefully selected so that the publication will merit, in reasonable degree, the confidence of the medical profession and others who work directly with the public in the field of nutrition. The service provided by the publication is distinct from that of an abstract journal, a review for laymen, or an extensive scientific review. Since the reviews as originally prepared by a member of the Editorial Staff are frequently modified by special referees and may be further modified by the Editorial Office in preparing final copy for the press, the Editorial Committee feels that it is preferable not to affix the names of Editorial Staff members to individual reviews. There is thus a high degree of group responsibility on the part of the Editor and Associate Editors.

Signed articles do not necessarily represent the opinion of the Editorial Staff.

67 71A A 30

CONTENTS OF VOLUME 24

No. 1, January 1966

Unsaturated Fatty Acid Isomers in Nutrition, by E. Aaes-Jørgensen 1
Comparison of an 800 to 1,000 Calorie Diet with Fasting in Weight Reduction 6
Gastrectomy in Children 8
Homocystinuria—Clinical and Pathological Aspects 9
Renal Acidification in Rickets 10
Metabolic Studies of Dispersed Rat Liver Cells 12
Diet and Fatty Acids in Cholesterol Esters of Plasma Lipoproteins 14
Transport of Vitamin A in the Lymphatic System 16
Vitamin D and Protein Synthesis 18
Batyl Alcohol and Fern Poisoning 19
Hepatic Steatosis and Protein Synthesis after Alcohol Ingestion 21
In Vitro Studies on the Nutritive Value of Leaf Proteins 24
Quantitative Determination of Amino Acids in Fish Products 25
Inhibition of Lipoprotein Synthesis by Orotic Acid 27
The Effect of Hypothalamic Lesions on Gastric Secretions 29
Letters to the Editor 30
Recent Books 32

No. 2, February 1966

Present Knowledge of Fat, by James F. Mead 33
Blood Lipids and Various Dietary Carbohydrates 35
Pyridoxine Therapy of Cystathioninuria 37
Variability of Caloric Intakes 39
Vitamin E Status of Adults on a Vegetable Oil Diet 41
Human Renal Calculus Formation and Magnesium 43
The Nutritional Value of a Canned Food Diet 46
A New Approach for Evaluation of Proteins 49
Differentiation of Mammary Gland *in Vitro* 51
Developments in Gas-Liquid Chromatography 53
The Influence of Bile Acids on Cholesterol Esterase 57
Antibacterial Agents and Cell Regeneration in the Intestine 60
Letters to the Editor 63
Latin American Nutrition Society Inaugural Meeting 64
Erratum 64

No. 3, March 1966

Present Knowledge of Carbohydrates, by Robert E. Hodges 65
Hypermetabolism and Undernutrition 68
In Vitro Action of Adipokinetic Hormones on Fat Tissue 69
Relationships Between Alcohol, Heart Disease, and Liver Disease 71
Body Water in Kwashiorkor 75
Intracellular Lipids in Tissue Culture 77
Galactose Utilization in Young and Adult Rats 80
Central Nervous System Stimulants and Pyridoxal Phosphate Levels in Rat Brain 81
Intermittent Food Restriction 83
Hypergammaglobulinemia and Albumin Synthesis in the Rabbit 86
Mobilization of Liver Lipids by Specific Plasma Proteins 87
Excess Protein and Leucine Effects on Food Intake 91
Endocrine Glands and Hypothalamic Obesity 93
Physical Activity and Serum Cholesterol Concentration 95
Recent Books 96

No. 4, April 1966

Experimental Alcoholic Hepatic Injury, by W. Stanley Hartroft and E. A. Porta 97
Availability of Vitamins and Minerals in Tablet Form 101
Dietary Fat in Essential Hyperlipemia 103
The Quality of Mothers' Milk in New Guinea 105
A Supplementary Feeding Trial in New Guinea 107
Nutritional Value of Mildly Oxidized Fats 109
Food and Water Intake Regulation of Rats with Walker Tumors 111
An Active Metabolite of Retinoic Acid 113
One or Many Animals in a Cage? 116
Comparative Metabolism of Linoleate and Arachidonate in the Rat 119
Isolation of Toxic Factors in Navy Beans 121
The Effect of Linoleic Acid on Reproduction in the Hen 122
The Antagonistic Effect of Vitamin A on Vitamin K in the Germfree Rat 125
Experimental Paralytic Shellfish Poisoning 127
Recent Books 128

No. 5, May 1966

Present Knowledge of Vitamin A, by Oswald A. Roels 129
Weight Reduction: Fasting Versus a Ketogenic Diet 133
Response of Young Infants to Growth Hormone 134
Endomyocardial Fibrosis in Uganda 136
Potassium and Gastrointestinal Lesions I 138
Potassium and Gastrointestinal Lesions II 141
Lactate Dehydrogenase Isozymes 143
Protein Intake and Aflatoxin Injury in Rats 146
Formation of Lipid-Protein Complexes 147
Serum Transport of Vitamin D 149
Obesity and Impaired Growth in Weanling Rats with Hypothalamic Lesions 151
Citrate Cleavage and Lipogenesis 153
Synthesis of Serine in Mouse Brain 155
Removal of Volatile Fatty Acids from Portal Blood by the Liver in Ruminants 157
Arterial Enzymatic Activity on a High Salt Diet 159
Leucocyte Oxygen Consumption in Iron Deficiency Anemia 160
Recent Books 160
Erratum 160

No. 6, June 1966

Medical Education in Nutrition: An Exploration of the Role of Industry, by Merrill S. Read and George J. Hamwi 161
Cystine Deficiency and Cholesterol Metabolism 164
Metabolic Responses in Fasted and Refed Rats 166
Pregnancy and Pantothenic Acid Deficiency in the Guinea Pig 169
Plasma Free Amino Acid Levels Reflect Excess or Deficiency of Dietary Amino Acids 170
Lack of Toxicity of Irradiated Food in a Mouse Diet 174
Effect of Fasting on the Formation of Oleate from Stearate and Palmitate 176
Irradiation and Atherosclerosis in Pigeons 178
Endothelial Changes in Scorbutic Guinea Pigs 179
Effects of Lipids on Rat Heart Cells in Tissue Culture 180
Protein Degradation: Factors Affecting Stability of Liver Tryptophan Pyrrolase 183
Body Nitrogen in Irradiation Chimeras 185
Exaggerated Depressed Food Intake Induced by Glucose in Hypothalamic Hyperphagic Rats 187
Dietary Fat and Cirrhosis in the Rat 189
Letter to the Editor 191
Recent Books 192

No. 7, July 1966

97 **Reduction of Nitrogen Deficits in Surgical Patients Maintained by Intravenous Alimentation,** by Stanley Levey ... 193
101 Protection of the Infant Diet: Government and Industry ... 195
103 Lipoprotein Lipase Activity in Liver Disease ... 196
105 Obesity and Heart Failure ... 199
107 Nutritional Evaluation of Inter-Esterified Fats ... 201
109 Vitamin E and Amino Acid Transport ... 203
111 The Influence of Vitamin A on Sulfate and Hexosamine Metabolism ... 204
113 The Effect of Pectin on Cholesterol Absorption ... 209
116 Serum Cholesterol Levels after Gastrectomy ... 210
119 A Test for an Osmotic Effect on Food Intake Regulation ... 212
121 Experimental Atherosclerosis and Tissue Respiration ... 214
122 The Effect of Dietary Nitrite on Liver Storage of Vitamin A in the Rat ... 216
125 Dietary Cholesterol and Regulation of Liver Cholesterol Synthesis ... 218
127 Diurnal Changes in Plasma and Liver Lipids in Rats in Initial Stages of Choline Deficiency ... 220
128 Letter to the Editor ... 222
Alteration in Amino Acids of Sorghym Hybrids Grown in Different Locations ... 223
129 Recent Book ... 224

No. 8, August 1966

133
134
136
138 **Present Knowledge of Intravenous Fat Emulsions,** by Richard J. Jones ... 225
141 Diet and Coronary Heart Disease ... 228
143 Safe Levels of Vitamin D Intake for Infants ... 230
146 The Therapeutic Effectiveness of Various Compounds Containing Iron ... 232
147 Sensitivity of the Human Brain to Insulin ... 235
149 Diets of Elderly Women ... 236
151 Alcohol Metabolism During Rest and Exercise ... 239
153 Vitamin A and Lysosomes ... 240
155 Brown Fat ... 244
157 Iron Absorption ... 247
159 Retinal and the Reproductive System of the Chicken ... 250
160 Insulin Sensitivity and Carbohydrate Metabolism of Obese Rats ... 252
160 Prevention of Renal Necrosis in Rats Fed Diets Lacking Choline ... 255
160 Recent Books ... 256

No. 9, September 1966

Present Knowledge of Nutrition in Relation to Diabetes Mellitus, by Robert E. Hodges ... 257
161 Some Characteristics of the "Coronary-Prone" Individual ... 260
164 Metabolic Lessons from Cholera ... 262
166 Fasting and Ketogenic Diet in Obese Children ... 266
169 Subsequent Growth of Children Treated for Malnutrition ... 267
170 Blood Cholesterol Levels in Czechoslovakian and Mongolian Subjects ... 269
174 Epidemiologic Observations on Strokes and Peripheral Vascular Disease ... 271
176 Lipids and Fat Soluble Vitamins in Cellular Metabolism ... 272
178 Folic Acid and Hemochromatosis ... 274
179 Vitamin B_6 and the Pituitary ... 276
180 Cholesterol Catabolism in Germfree Rats ... 278
183 Effects of Fasting on RNA and Oleate Synthesis in Isolated Fat Cells ... 280
185 Cell Membrane Sterols and Antibiotic Action ... 281
187 Central Nervous System Centers and Regulation of Lipid Mobilization ... 283
189 Rat Growth on Amino Acid Mixtures Simulating Casein ... 285
191 Dietary Protein and Resistance to *Trichinella Spiralis* Infection ... 287
192 Recent Book ... 288

No. 10, October 1966

Present Knowledge of Folacin, by Joseph J. Vitale 289
Weight Loss and Serum Lipids 292
"Loss-of-Control" Drinking in the Abstinent Alcoholic 294
Early Feeding of the Premature Infant 295
Rampant Caries in the Pre-School Child 297
Weight Gain During Drug Treatment for Reduction of Serum Cholesterol 299
Erythropoiesis in Protein Starvation 300
Weight Regulation 303
Copper Toxicity 305
Nutritional State and Hormonal Regulation of Liver Enzymes 308
Congenital Supravalvular Aortic Stenosis, Idiopathic Hypercalcemia, and Vitamin D 311
Multiple Factors Altering Radiation Sensitivity 313
Fasting Metabolic Rate of Cattle 315
Muscle Contraction and Muscle Lipid Composition in the Monkey 317
On Meeting Certain Recommended Dietary Allowances in the Elderly and the Indolent 319
Recent Books 320

No. 11, November 1966

Foods and Feeds as Sources of Carcinogenic Factors, by Harold G. Petering 321
Hydroxyproline Creatinine Ratio as an Index of Nutritional Status 324
Gastric Function and Structure in Iron Deficiency 326
Gastric Secretions Before and After Vagotomy 328
Iron Deficiency and Growth 330
Factors Affecting Amino Acid Absorption 332
Environmental Temperature and Choline Requirement 335
Experimental Nutritional Dystrophy and Isozymes 337
Triton and Fat Balance 338
Renal Control of Acidosis 340
Study of Isolated Small Intestinal Cells 343
Carbohydrate Metabolism of Rats Consuming 450 P.P.M. Fluoride 346
Letter to the Editor 350
Recent Books 352

No. 12, December 1966

The Nutrition Foundation's First Twenty-five Years: A Quarter Century of Nutrition Science Progress, by Horace L. Sipple 353
Author Index 359
Subject Index 367